Fluoroquinolone-Resistant *Campylobacter jejuni* Infections in the United States: NARMS Data, 1997 - 2001

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Background: Increased use of antimicrobials for agricultural purposes has caused concern regarding the impact these uses have on human health. Animals are reservoirs for foodborne pathogens such as *Campylobacter*, which has a poultry reservoir. *Campylobacter* causes 2.4 million infections each year in the United States; infections in adults are commonly treated with fluoroquinolones. Human infections with fluoroquinolone-resistant *Campylobacter* have become common; this concern, in conjunction with other data, prompted FDA to propose the withdrawal of fluoroquinolone use in poultry. Fluoroquinolones continue to be used in poultry.

Methods: In 1997, the National Antimicrobial Resistance Monitoring System (NARMS) began monitoring antimicrobial resistance in *Campylobacter*. Currently, nine state public health laboratories forward the first *Campylobacter* isolate received each week to NARMS. Isolates are speciated and susceptibility testing to ciprofloxacin is performed.

Results: NARMS tested 1592 *Campylobacter* isolates from 1997-2001; of speciated isolates, 95% were *C. jejuni*, 4% *C. coli*, and 1% other *Campylobacter* species. Sixteen percent of isolates (253/1592) were ciprofloxacin-resistant (MIC = 4 µg/ml); 15% (231) of *C. jejuni* isolates and 28% (17) *C. coli*. In 2001, 18% of *C. jejuni* isolates were ciprofloxacin-resistant (67/366).

Conclusion: NARMS data indicate that a substantial proportion of *C. jejuni* isolates are resistant to fluoroquinolones. Since these drugs are used to treat human *Campylobacter* infections, this resistance may compromise its effectiveness and its role in the treatment of human infections.

Suggested citation:

Anderson A, McClellan J, Joyce K, Barrett T, Angulo F, and the NARMS Working Group. Fluoroquinolone-Resistant *Campylobacter jejuni* Infections in the United States: NARMS Data, 1997 - 2001. National Antimicrobial Resistance Monitoring Systems. Annual Scientific Meeting. November 19-22, 2002. Hilton Head, SC.